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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,687	05/06/2005	Yoshihisa Kubota	US01-05002PCT	1772
21254 7590 05/01/2007 MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			EXAMINER LAVARIAS, ARNEL C	
			ART UNIT 2872	PAPER NUMBER
			MAIL DATE 05/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/522,687	Applicant(s) KUBOTA ET AL.	
	Examiner Arnel C. Lavarias	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/11/07, 10/18/06, 1/31/05.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-86 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 61-86 is/are allowed.
- 6) ☒ Claim(s) 1, 11, 20, 30, 41 and 50 is/are rejected.
- 7) ☒ Claim(s) 2-10, 12-19, 21-29, 31-40, 42-49 and 51-60 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/11/07, 10/18/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. The amendments to Claims 8, 11, 18, 20, 27, 37, 40, 48, 57, 60, 73, 83, and 86 in the preliminary amendment filed 1/31/05 are acknowledged and accepted.

### *Priority*

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

3. The originally filed drawings were received on 1/31/05. These drawings are objected to for the following reason(s) as set forth below.

4. The drawings are objected to because of the following informalities:

Figure 18- 'EFLECTING' in the text on the far left side of the figure should read 'REFLECTING'

Figure 21- 'SCATTER ING' in the text of the far left side of the figure should read 'SCATTERING'.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an

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amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Examples of such errors are set forth *infra*.
6. The disclosure is objected to because of the following informalities:  
  
Page 19, line 15- 'reprocusing' should read 'reproducing'.  
  
Appropriate correction is required.

***Claim Objections***

7. Claims 9, 19, 28, 38, 49, 58, 71, 78, 84 are objected to because of the following informalities:

Claim 9, line 4; Claim 19, line 4; Claim 28, line 4; Claim 38, line 4; Claim 49, line 4;

Claim 58, line 4; Claim 71, line 5; Claim 78, line 5; Claim 84, line 4- the limitation

"( $\theta \neq 0$ )" renders the claim problematic because it is not certain whether this limitation in parentheses is part of the claimed invention.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 11, 20, 30, 41, 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Corcoran (U.S. Patent No. 3657473).

Corcoran discloses a holographic recording and reproducing apparatus and method (See Figure) for recording information as a diffraction grating area in a recording medium, and for reproducing the recorded information from the diffraction grating area, the holographic recording and reproducing apparatus and method including: a holding section (See for example 33, 34 in Figure) for detachably holding a recording medium (See for example 35 in Figure) made of a photosensitive material; a light source (See for

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example 20 in Figure) for generating a coherent reference beam (See for example 21 in Figure); a signal beam generating unit (See for example 22, 23, 24, 39, and electronics and circuitry and equipment associated with 10, 14, 25, 40 in Figure) including a spatial light modulator (See for example 22, 23, 24 in Figure), the spatial light modulator spatially modulating the reference beam in accordance with the information to be recorded to generate a signal beam (See for example any one or more of 26, 27, 28 in Figure); an interference unit (See for example 31, 38, 39, 32 in Figure) including an illuminating optical system (See for example 32, 42 in Figure) for illuminating the recording medium with the signal beam to allow it to enter into and pass through the recording medium, the illuminating optical system creating a diffraction grating area according to a light interference pattern in a portion where a 0<sup>th</sup> order beam (See for example 26 in Figure) and a diffraction beam (See for example 27 in Figure) of the signal beam interfere with each other inside the recording medium, the illuminating optical system (See for example 32, 42 in Figure) illuminating the diffraction grating area with the reference beam (See 21, 27 in Figure; col. 4, lines 3-21) to generate a reproduced wave (See for example 44 in Figure) corresponding to the signal beam; and a detecting unit (See for example 47, 48 in Figure) for detecting the recorded information formed into an image by the reproduced wave. It is noted that the method steps recited in Claims 1, 11, and 20 necessarily follow from the above apparatus as disclosed by Corcoran.

***Allowable Subject Matter***

10. Claims 2-10, 12-19, 21-29, 31-40, 42-49, 51-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. Claims 61-86 are allowed.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arnel C. Lavarias  
Primary Examiner  
Group Art Unit 2872  
4/27/07

  
ARNEL LAVARIAS  
PRIMARY PATENT EXAMINER